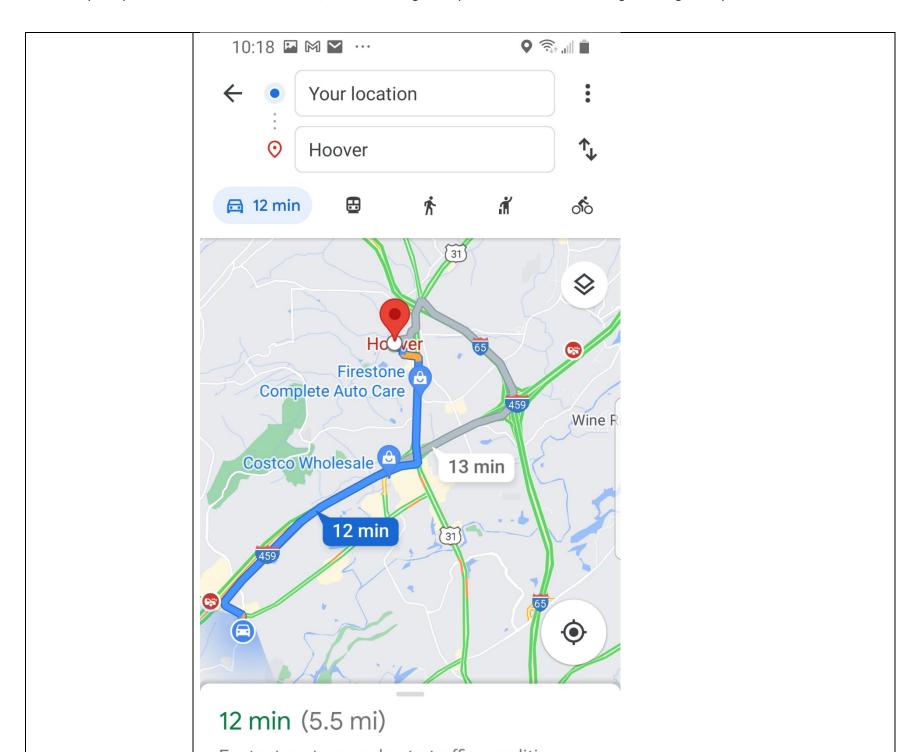
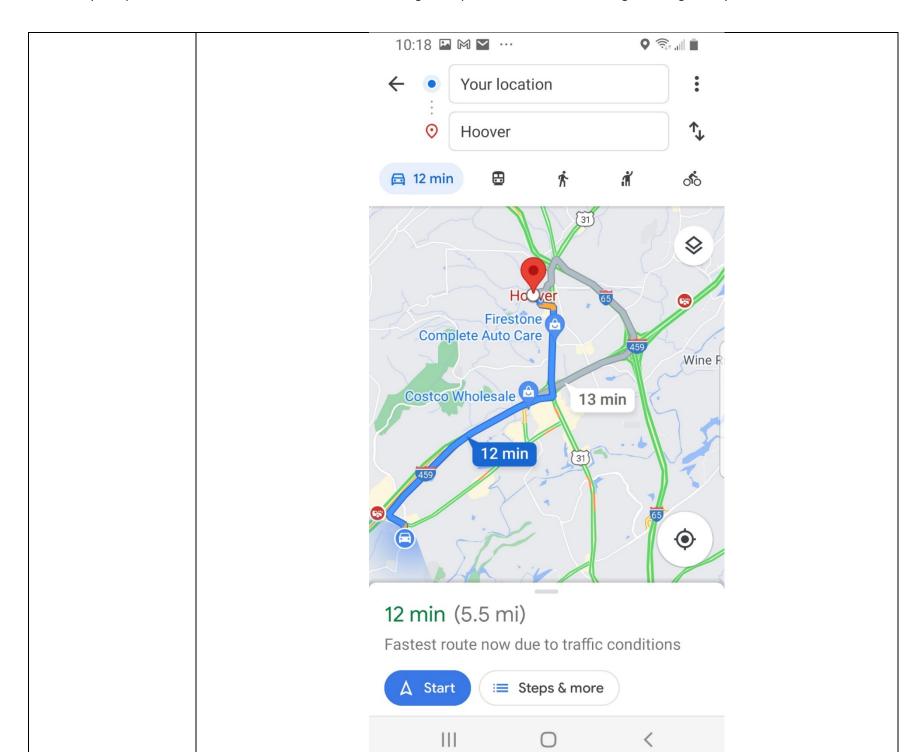
EXHIBIT E

1. A system for presenting location-	As shown below, Samsung's Bixby virtual assistant utilizes a system for presenting location-based information to a mobile electronic device dependent on its location.
based information to a	information to a mobile electronic device dependent on its location.
mobile electronic	
device dependent on its	
location, comprising:	
a communication	On information and belief, Samsung's Bixby utilizes a communication network interface port, including,
network interface port;	for example,
	to send and receive information related to user requests.
a database system,	Samsung's Bixby virtual assistant utilizes a database system, configured to automatically store and retrieve
configured to	location-based information for a traveler, the location-based information comprising location-based travel
automatically store and	information and location-based advertisements.
retrieve location-based	
information for a	For example, in testing, a user asked Bixby, "Hi Bixby, how long will it take me to get home right now in
traveler, the location-	traffic?"
based information	
comprising location-	As pictured below, Bixby utilized Google Maps to display an answer to the request, showing the answer to
based travel	be twelve minutes. This evidences that Samsung's Bixby utilizes a database configured to automatically
information and	store and retrieve location-based information for a traveler. This includes location-based travel information
location-based	(e.g., the information showing the route from the user's current location to the destination) and location-
advertisements; and	based advertisements (e.g., the advertisements for Costco Wholesale and Firestone Complete Auto Care).



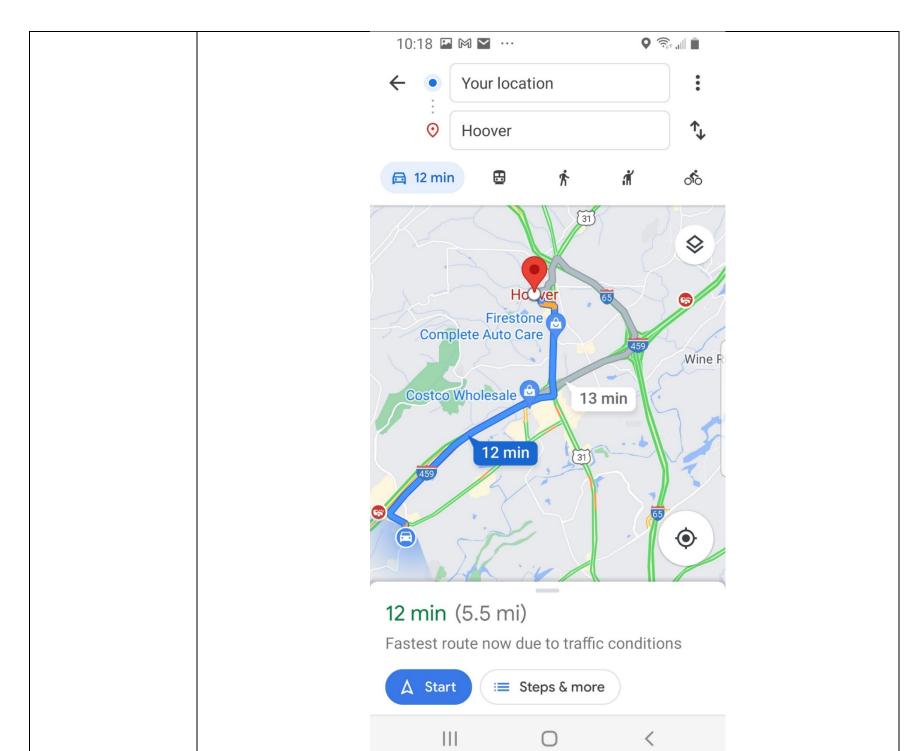
at least one server having at least one automated processor, configured to: automatically control access to the database system, to store and retrieve the location-based information;	Samsung utilizes at least one server having at least one automated processor configured to automatically control access to the database system, to store and retrieve the location-based information. For example, as illustrated above, Samsung Bixby utilized a server that stored and retrieved the location-based information relating to the user's route from his current location to his destination.
automatically receive a location from a mobile electronic device;	Samsung utilizes at least one server having at least one automated processor configured to automatically receive a location from a mobile electronic device. For example, as illustrated in the example above, Samsung utilized a server that automatically received a location from the user's mobile electronic device.
automatically receive location-based information from the mobile electronic device;	Samsung utilizes at least one server having at least one automated processor configured to automatically receive location-based information from the mobile electronic device. For example, as illustrated in the example above, Samsung utilized a server that automatically received location-based information from the mobile electronic device (e.g., speed and traffic-related information, as indicated by the orange segments near the user's location).
automatically retrieve location-based travel information from the database system dependent on the received location of the mobile electronic device;	Samsung utilizes at least one server having at least one automated processor configured to automatically retrieve location-based travel information from the database system dependent on the received location of the mobile electronic device. For example, as illustrated in the example above, Samsung utilized a server that automatically retrieved location-based travel information from the database system (e.g., route and traffic information) dependent on the received location of the mobile electronic device.

automatically retrieve a location-based advertisement from the database system dependent on at least the received location of the mobile electronic device and relevant to at least one spoken keyword; and	Samsung utilizes at least one server having at least one automated processor configured to automatically retrieve a location-based advertisement from the database system dependent on at least the received location of the mobile electronic device and relevant to at least one spoken keyword. For example, as illustrated in the example above, Samsung utilized a server that automatically retrieved a location-based advertisement from the database system dependent on at least the received location of the mobile electronic device and relevant to at least one spoken keyword (e.g., advertisements for Costco and Firestone near the user's route to his spoken destination, "home."
automatically present the retrieved location- based advertisement to a user of the mobile electronic device.	Samsung utilizes at least one server having at least one automated processor configured to automatically present the retrieved location-based advertisement to a user of the mobile electronic device. For example, as illustrated in the example above, Samsung utilized a server that automatically presented the retrieved location-based advertisement to a user of the mobile electronic device.

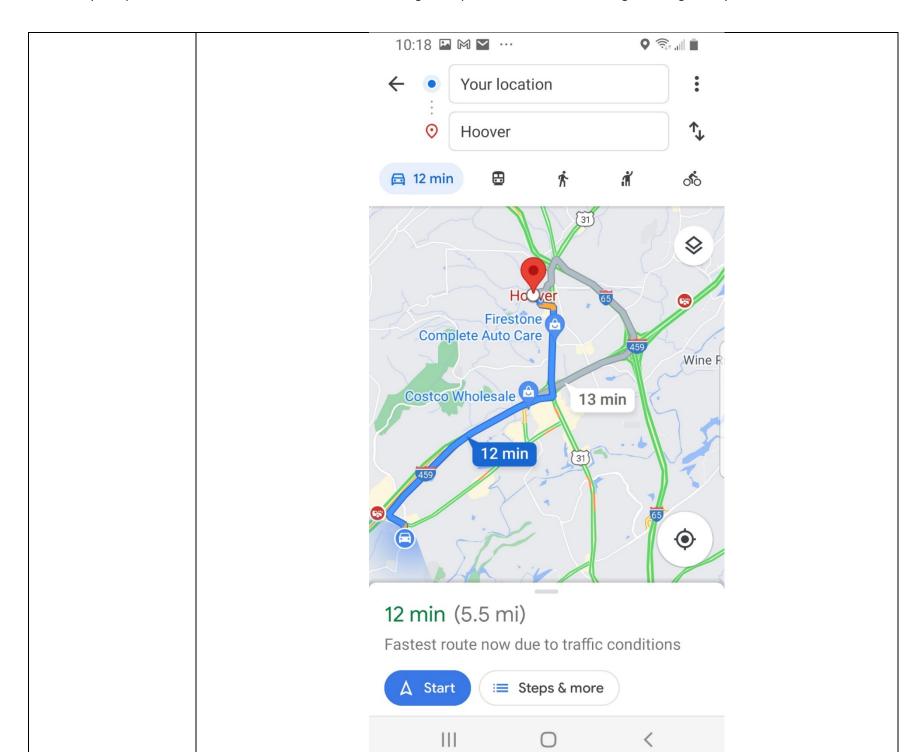


2. The system according to claim 1, wherein the at least one	On information and belief, Samsung's Bixby virtual assistant utilizes a server configured to retrieve the location-based advertisement from the database system dependent on at least the received location of the mobile electronic device and a prior communications from the mobile electronic device.
server is further	moone electronic device and a prior communications from the moone electronic device.
configured to retrieve	For example, on information and belief, advertisements displayed to a user are based at least in part on
the location-based	prior communications from the user's mobile electronic device.
advertisement from the	
database system	
dependent on at least	
the received location of	
the mobile electronic	
device and a prior	
communications from	
the mobile electronic	
device.	
3. The system	Samsung's Bixby virtual assistant utilizes a communication network interface port configured to interface
according to claim 1,	to the Internet, and the mobile electronic device comprises a cellular telephone.
wherein the	
communication	For example, Samsung's Bixby may be used with Samsung cellular telephones interfacing with Samsung's
network interface port	servers over the Internet. The device used in the illustration described above was a Samsung cellular
is configured to	telephone.
interface to the	
Internet, and the mobile	
electronic device	
comprises a cellular	
telephone.	
4. The system	Samsung's Bixby virtual assistant utilizes a location received from the mobile electronic device via global
according to claim 3,	positioning satellite data.
wherein the location	
received from the	https://www.samsung.com/za/support/mobile-devices/how-do-i-change-the-location-tracking-settings-gps-
mobile electronic	on-my-samsung-galaxy-alpha/
device is global	

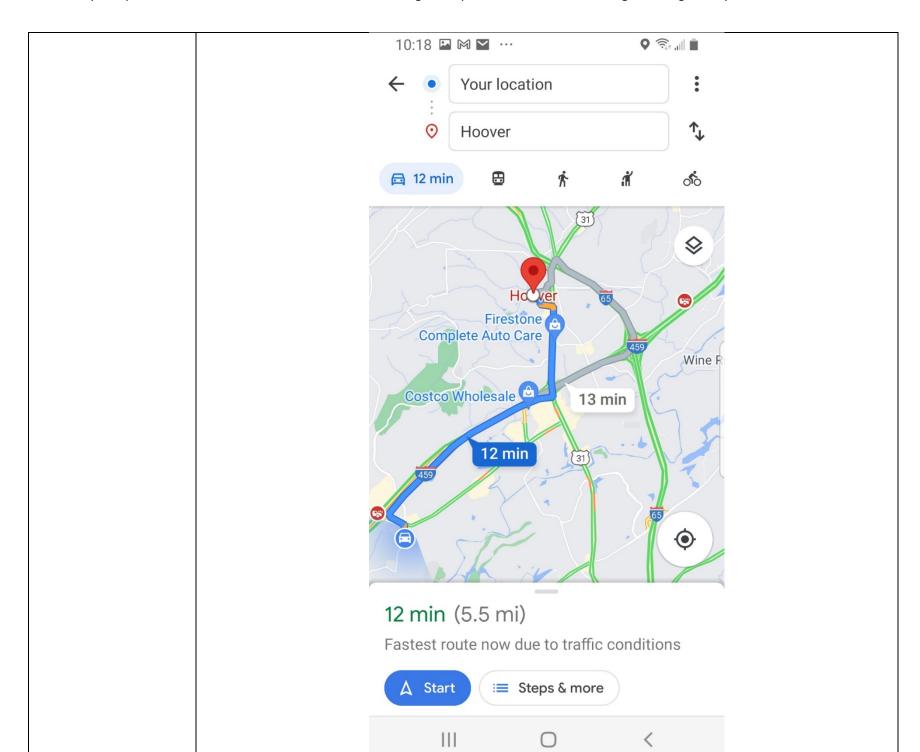
positioning satellite data.	
uata.	
5. The system	Samsung's Bixby virtual assistant utilizes location-based travel information, including traffic information.
according to claim 1,	
wherein the received	This is evidenced, for example, by the orange segments in the user's route below.
location-based travel	
information comprises	
traffic information.	



6. The system	Samsung's Bixby virtual assistant utilizes location-based travel information, including traffic information,
according to claim 1,	including road hazard information.
Wherein the received	
location-based travel	This is evidenced, for example, by the traffic-accident icon near the user's route in the screenshot below.
information comprises	
road hazard	
information.	



8. The system	Samsung's Bixby virtual assistant utilizes a system that displays a warning icon on a GPS map of the
according to claim 1,	mobile electronic device.
wherein the transmitted	
location-based travel	This is evidenced, for example, by the traffic-accident icon near the user's route in the screenshot below.
route information is	
configured to display a	
warning icon on a GPS	
map of the mobile	
electronic device.	

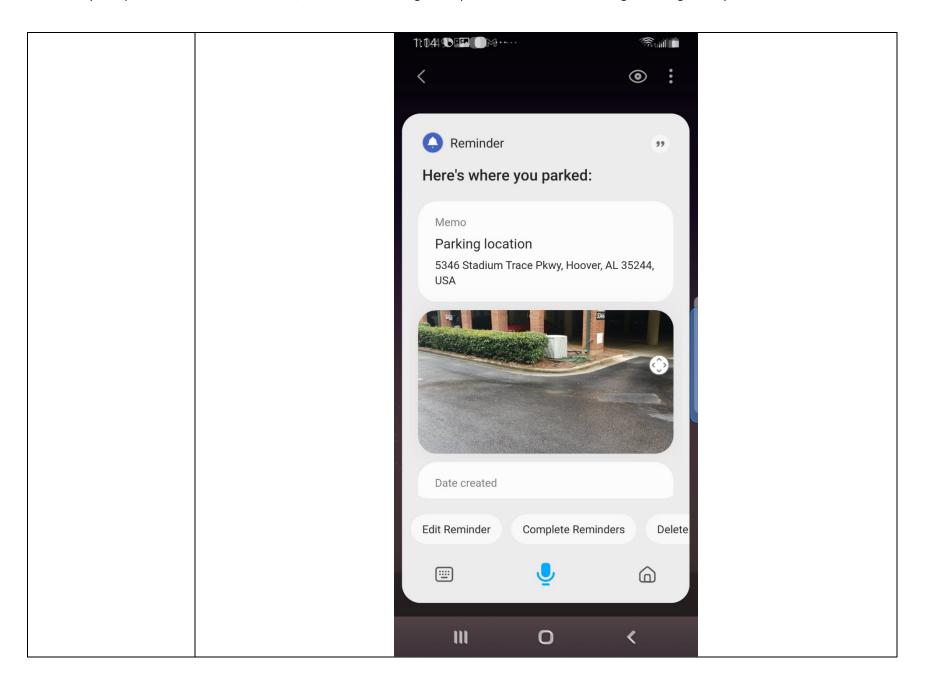


Preliminary comparison of U.S. Patent No. 11,100,163 to Samsung Smartphones and Tablets Utilizing Samsung's Bixby Virtual Assistant

9. The system
according to claim 1,
wherein the database
system is further
configured to store an
image and associated
location of the image.

On information and belief, the database system utilized by Samsung's Bixby virtual assistant is configured to store an image and associated location of the image.

For example, a user can say, "Hi Bixby, remember my parking location." Bixby records the location in a Reminder and asks the user to take a photo of the parking location. The user can then say, "Hi Bixby, where did I park my car?" Bixby then shows the Reminder and photo, as shown in the example below.

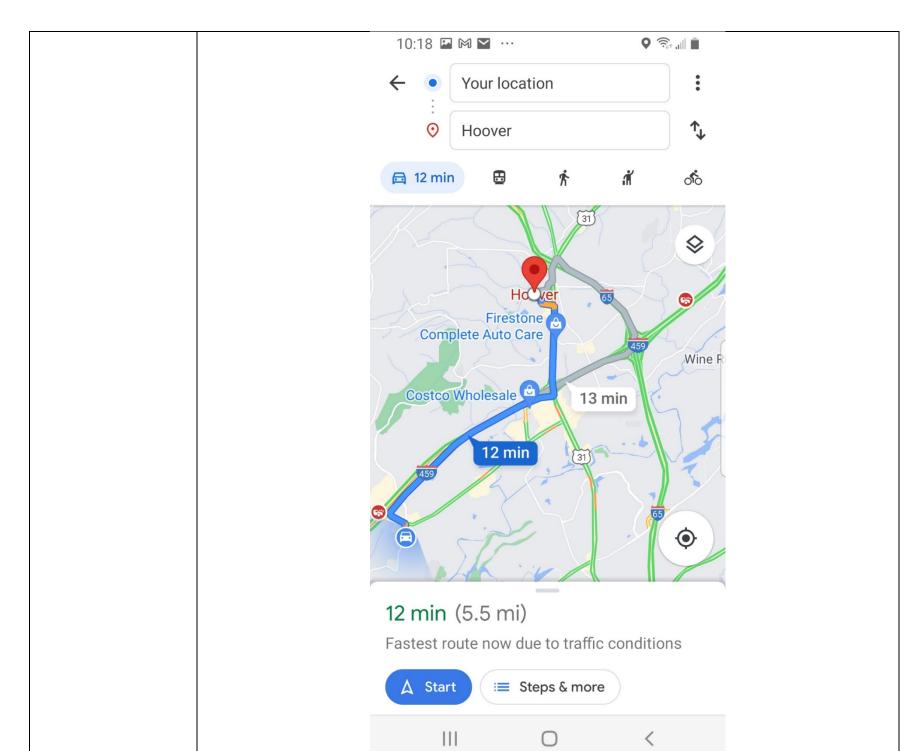


Preliminary comparison of U.S. Patent No. 11,100,163 to Samsung Smartphones and Tablets Utilizing Samsung's Bixby Virtual Assistant

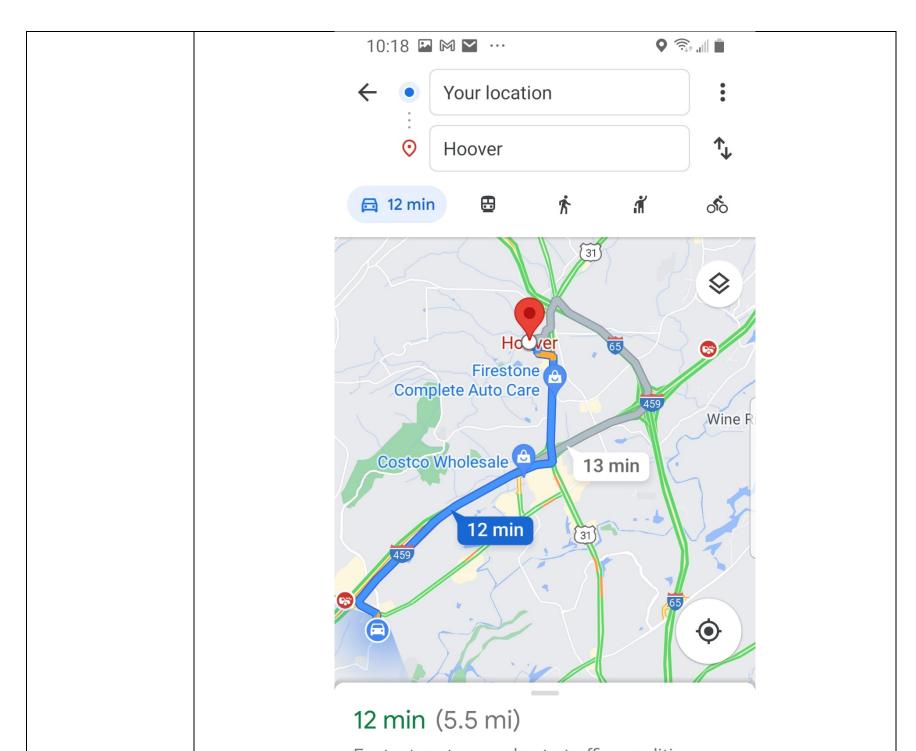
10. The system
according to claim 1,
wherein the at least one
server is configured to
receive a search query
through the
communication
network interface port,
search the database
system based on the
search query, receive a
response to the query
from the database
system, and transmit
the response through
the communication
network interface port.

The server utilized by Samsung's Bixby virtual assistant is configured to receive a search query through the communication network interface port, search the database system based on the search query, receive a response to the query from the database system, and transmit the response through the communication network interface port.

For example, this is illustrated in the example described above, in which Samsung's Bixby received a search query from a user through the communication network interface port, searched the database system in response to the query, received a response to the query from the database system, and transmitted the response through the communication network interface port. This is illustrated in the query response displayed to the user.

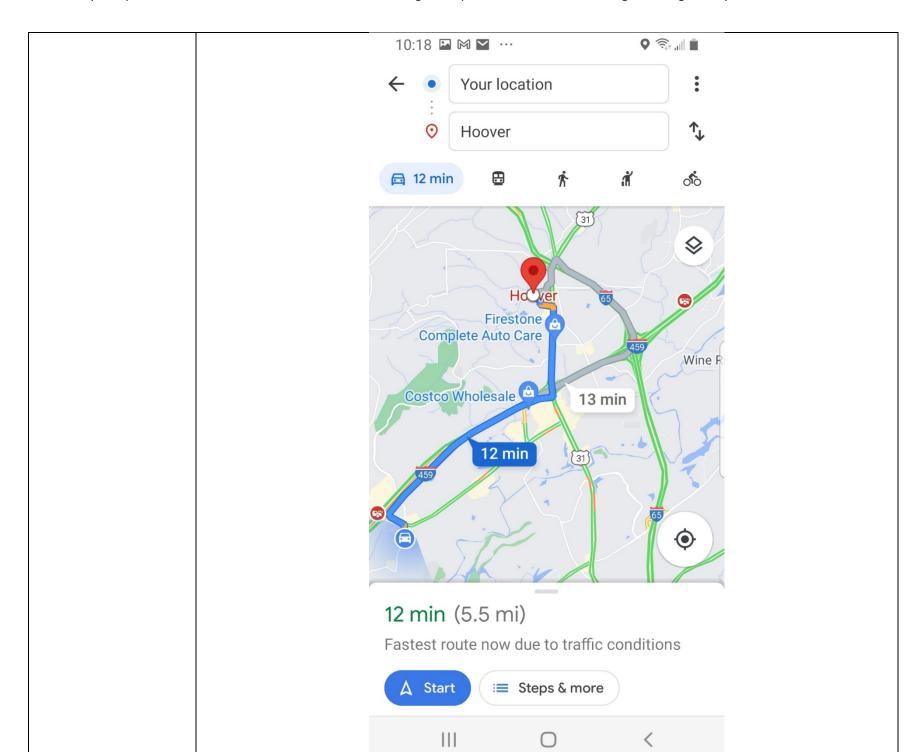


11. A method for presenting location-based information to a mobile electronic device dependent on its location, comprising:	On information and belief, Defendant performs all steps of this claim or, alternatively, to the extent a user performs any step, Defendant conditions the user's use of the Defendant's accused instrumentalities on the performance of that step as disclosed herein. For example, on information and belief, a user cannot use the accused instrumentality as described in this claim chart without performance of the steps recited in this claim. By providing the functionality of the accused instrumentality as described herein, Defendant also controls the manner and/or timing of the functionality described in this claim chart. In other words, for a user to utilize the functionality described in this claim chart, the steps of this claim must be performed in the manner described herein. Without performance of the steps as described herein, the Defendant's functionality will not be available to users.
	As shown below, Samsung's Bixby virtual assistant utilizes a method for presenting location-based information to a mobile electronic device dependent on its location.
providing a database	Samsung's Bixby virtual assistant utilizes a database system, configured to automatically store and retrieve
system, for storing and	location-based information for a traveler, the location-based information comprising location-based travel
	information and location-based advertisements.
retrieving location- based information for a	information and focation-based advertisements.
	English to the time of the distribution of the distribution of the second of the secon
traveler, the location-	For example, in testing, a user asked Bixby, "Hi Bixby, how long will it take me to get home right now in
based information	traffic?"
comprising location-	As a second declarate Discharge Control Manager discharge an arrange of the manager of the second of
based travel	As pictured below, Bixby utilized Google Maps to display an answer to the request, showing the answer to
information and	be twelve minutes. This evidences that Samsung's Bixby utilizes a database configured to store and
location-based	retrieve location-based information for a traveler. This includes location-based travel information (e.g., the
advertisements;	information showing the route from the user's current location to the destination) and location-based advertisements (e.g., the advertisements for Costco Wholesale and Firestone Complete Auto Care).

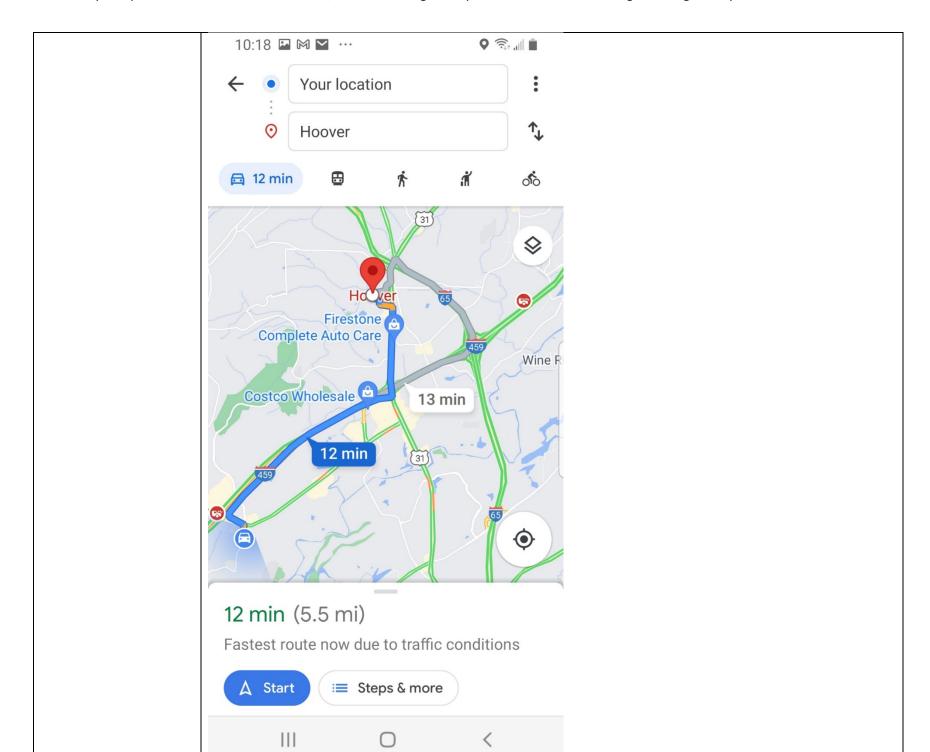


receiving a location from a mobile electronic device with at least one server through a communication network interface port;	Samsung's Bixby virtual assistant involves receiving a location from a mobile electronic device with at least one server through a communication network interface port. For example, as illustrated in the example above, Samsung utilized a server that received a location from the user's mobile electronic device.
receiving location- based information from the mobile electronic device through the communication network interface port;	Samsung's Bixby virtual assistant involves receiving location-based information from the mobile electronic device through the communication network interface port. For example, as illustrated in the example above, Samsung utilized a server that received location-based information from the mobile electronic device (e.g., speed and traffic-related information, as indicated by the orange segments near the user's location). Moreover, Samsung's Bixby virtual assistant may also involve receiving other location-based information from the mobile electronic device, such as information regarding road hazards or police activity.
retrieving location- based travel information from the database system dependent on the received location of the mobile electronic device;	Samsung's Bixby virtual assistant involves retrieving location-based travel information from the database system dependent on the received location of the mobile electronic device. For example, as illustrated in the example above, Samsung utilized a server that retrieved location-based travel information from the database system (e.g., route and traffic information) dependent on the received location of the mobile electronic device.
retrieving a location- based advertisement from the database system dependent on at least the received location of the mobile electronic device and	Samsung's Bixby virtual assistant involves retrieving a location-based advertisement from the database system dependent on at least the received location of the mobile electronic device and relevant to at least one spoken keyword. For example, as illustrated in the example above, Samsung utilized a server that retrieved a location-based advertisement from the database system dependent on at least the received location of the mobile electronic device and relevant to at least one spoken keyword (e.g., advertisements for Costco and Firestone near the user's route to his spoken destination, "home."

relevant to at least one spoken keyword; and	
presenting the retrieved location-based advertisement to a user of the mobile electronic	Samsung's Bixby virtual assistant involves presenting the retrieved location-based advertisement to a user of the mobile electronic device presenting the retrieved location-based advertisement to a user of the mobile electronic device.
device	For example, as illustrated in the example above, Samsung utilized a server that presented the retrieved location-based advertisement to a user of the mobile electronic device.



presenting the retrieved	Samsung's Bixby virtual assistant involves presenting the retrieved location-based advertisement to a user
location-based	of the mobile electronic device
advertisement to a user	presenting the retrieved location-based advertisement to a user of the mobile electronic device.
of the mobile electronic	
device.	For example, as illustrated in the example above, Samsung utilized a server that presented the retrieved
	location-based advertisement to a user of the mobile electronic device.



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12. The method according to claim 11, wherein the at least one server further retrieves the location-based advertisement from the database system dependent on at least the received location of the mobile electronic device and a prior history of communications from the mobile electronic device.

On information and belief, Defendant performs all steps of this claim or, alternatively, to the extent a user performs any step, Defendant conditions the user's use of the Defendant's accused instrumentalities on the performance of that step as disclosed herein. For example, on information and belief, a user cannot use the accused instrumentality as described in this claim chart without performance of the steps recited in this claim. By providing the functionality of the accused instrumentality as described herein, Defendant also controls the manner and/or timing of the functionality described in this claim chart. In other words, for a user to utilize the functionality described in this claim chart, the steps of this claim must be performed in the manner described herein. Without performance of the steps as described herein, the Defendant's functionality will not be available to users.

Samsung's Bixby virtual assistant involves the server retrieving the location-based advertisement from the database system dependent on at least the received location of the mobile electronic device and a prior history of communications from the mobile electronic device.

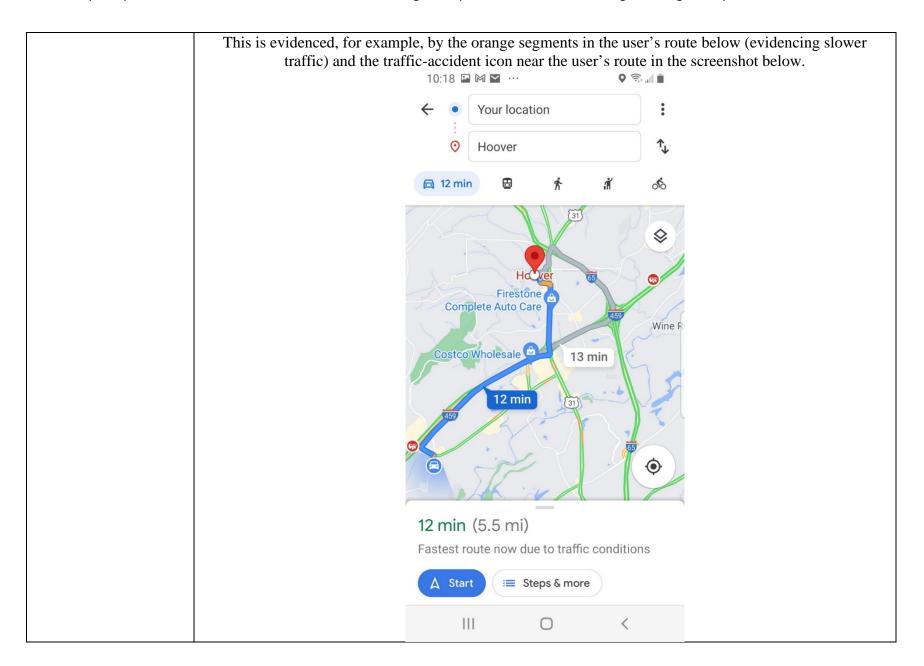
For example, on information and belief, advertisements displayed to a user are based at least in part on prior communications from the user's mobile electronic device.

13. The method according to claim 11, Wherein the communication network interface port is an interface to the Internet, the mobile electronic device comprises a cellular telephone, and the location received from the mobile electronic device is global positioning satellite data.

On information and belief, Defendant performs all steps of this claim or, alternatively, to the extent a user performs any step, Defendant conditions the user's use of the Defendant's accused instrumentalities on the performance of that step as disclosed herein. For example, on information and belief, a user cannot use the accused instrumentality as described in this claim chart without performance of the steps recited in this claim. By providing the functionality of the accused instrumentality as described herein, Defendant also controls the manner and/or timing of the functionality described in this claim chart. In other words, for a user to utilize the functionality described in this claim chart, the steps of this claim must be performed in the manner described herein. Without performance of the steps as described herein, the Defendant's functionality will not be available to users.

Samsung's Bixby virtual assistant utilizes a communication network interface port is an interface to the Internet, the mobile electronic device comprises a cellular telephone, and the location received from the mobile electronic device is global positioning satellite data.

	For example, Samsung's Bixby may be used with Samsung cellular telephones interfacing with Samsung's servers over the Internet. The device used in the illustration described above was a Samsung cellular telephone. Samsung's Bixby virtual assistant utilizes a location received from the mobile electronic device via global
	positioning satellite data. https://www.samsung.com/za/support/mobile-devices/how-do-i-change-the-location-tracking-settings-gps-on-my-samsung-galaxy-alpha/
14. The method according to claim 11, wherein the received location-based travel information comprises information selected from the group consisting of one or more of: traffic information; and road hazard information.	On information and belief, Defendant performs all steps of this claim or, alternatively, to the extent a user performs any step, Defendant conditions the user's use of the Defendant's accused instrumentalities on the performance of that step as disclosed herein. For example, on information and belief, a user cannot use the accused instrumentality as described in this claim chart without performance of the steps recited in this claim. By providing the functionality of the accused instrumentality as described herein, Defendant also controls the manner and/or timing of the functionality described in this claim chart. In other words, for a user to utilize the functionality described in this claim chart, the steps of this claim must be performed in the manner described herein. Without performance of the steps as described herein, the Defendant's functionality will not be available to users. Samsung's Bixby virtual assistant utilizes location-based travel information, including traffic information and road hazard information.



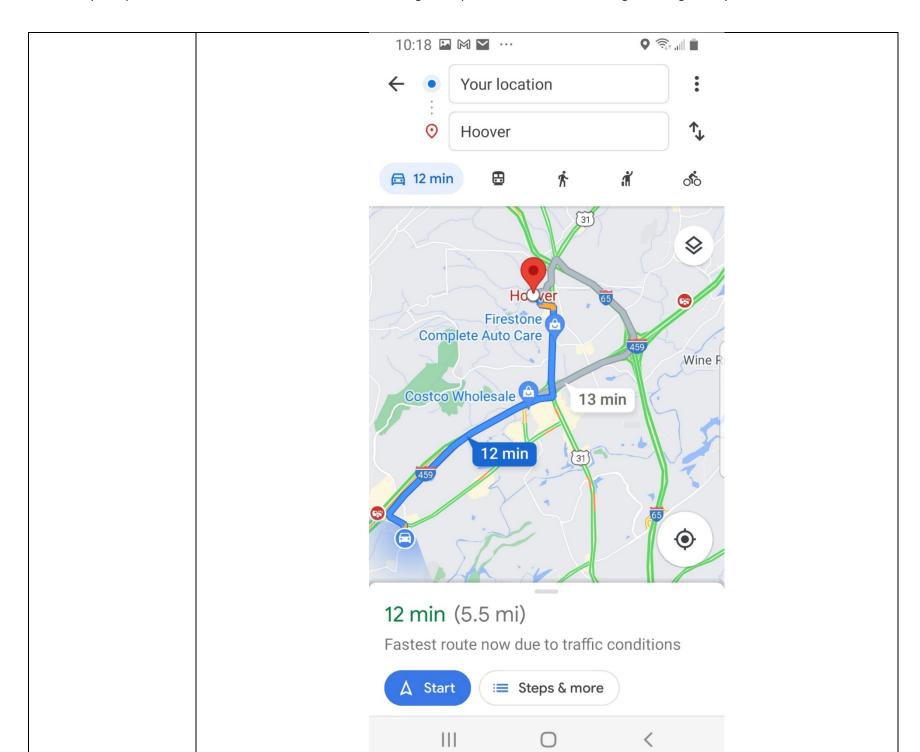
Preliminary comparison of U.S. Patent No. 11,100,163 to Samsung Smartphones and Tablets Utilizing Samsung's Bixby Virtual Assistant

16. The method according to claim 11, wherein the transmitted location-based travel route information displays a warning icon on a GPS map of the mobile electronic device.

On information and belief, Defendant performs all steps of this claim or, alternatively, to the extent a user performs any step, Defendant conditions the user's use of the Defendant's accused instrumentalities on the performance of that step as disclosed herein. For example, on information and belief, a user cannot use the accused instrumentality as described in this claim chart without performance of the steps recited in this claim. By providing the functionality of the accused instrumentality as described herein, Defendant also controls the manner and/or timing of the functionality described in this claim chart. In other words, for a user to utilize the functionality described in this claim chart, the steps of this claim must be performed in the manner described herein. Without performance of the steps as described herein, the Defendant's functionality will not be available to users.

Samsung Bixby's virtual assistant utilizes transmitted location-based travel route information displaying a warning icon on a GPS map of the mobile electronic device.

This is evidenced, for example, by the traffic-accident icon near the user's route in the screenshot below.



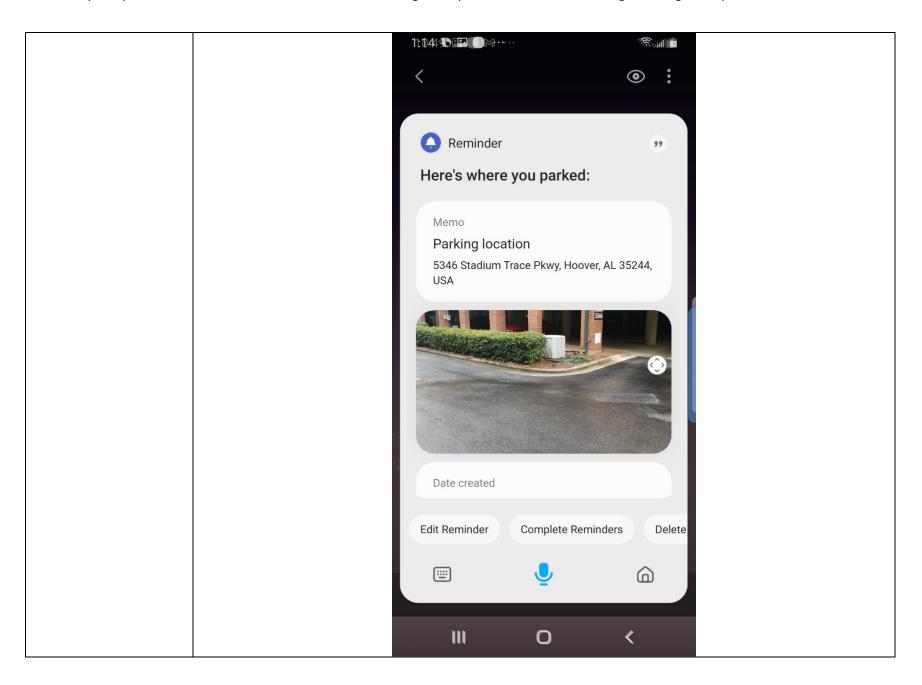
Preliminary comparison of U.S. Patent No. 11,100,163 to Samsung Smartphones and Tablets Utilizing Samsung's Bixby Virtual Assistant

17. The method according to claim 11, wherein the database system stores images and respective associated locations for each image, and retrieves the stored image based on the received location from the mobile electronic device.

On information and belief, Defendant performs all steps of this claim or, alternatively, to the extent a user performs any step, Defendant conditions the user's use of the Defendant's accused instrumentalities on the performance of that step as disclosed herein. For example, on information and belief, a user cannot use the accused instrumentality as described in this claim chart without performance of the steps recited in this claim. By providing the functionality of the accused instrumentality as described herein, Defendant also controls the manner and/or timing of the functionality described in this claim chart. In other words, for a user to utilize the functionality described in this claim chart, the steps of this claim must be performed in the manner described herein. Without performance of the steps as described herein, the Defendant's functionality will not be available to users.

On information and belief, the database system utilized by Samsung's Bixby virtual assistant stores an image and respective associated locations for each image, and retrieves the stored image based on the received location from the mobile electronic device.

For example, a user can say, "Hi Bixby, remember my parking location." Bixby records the location in a Reminder and asks the user to take a photo of the parking location. The user can then say, "Hi Bixby, where did I park my car?" Bixby then shows the Reminder and photo, as shown in the example below.



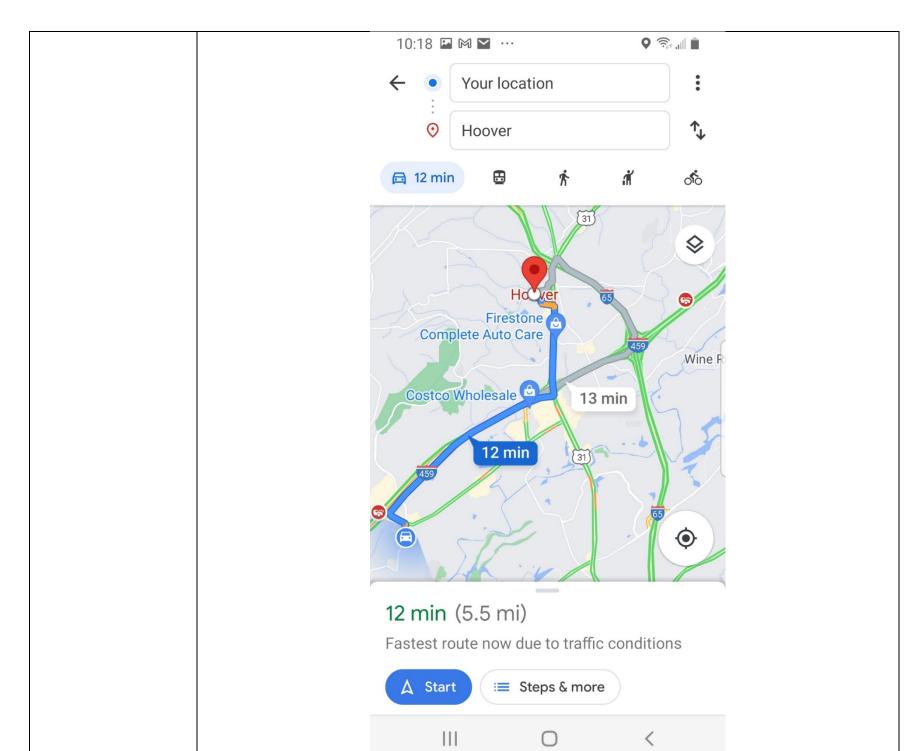
Preliminary comparison of U.S. Patent No. 11,100,163 to Samsung Smartphones and Tablets Utilizing Samsung's Bixby Virtual Assistant

18. The method according to claim 11, wherein the at least one server receives a search query through the communication network interface port, searches the database system based on the search query, receives a response to the query from the database system, and transmits the response through the communication network interface port.

On information and belief, Defendant performs all steps of this claim or, alternatively, to the extent a user performs any step, Defendant conditions the user's use of the Defendant's accused instrumentalities on the performance of that step as disclosed herein. For example, on information and belief, a user cannot use the accused instrumentality as described in this claim chart without performance of the steps recited in this claim. By providing the functionality of the accused instrumentality as described herein, Defendant also controls the manner and/or timing of the functionality described in this claim chart. In other words, for a user to utilize the functionality described in this claim chart, the steps of this claim must be performed in the manner described herein. Without performance of the steps as described herein, the Defendant's functionality will not be available to users.

Samsung's Bixby virtual assistant involves the server receiving a search query through the communication network interface port, searching the database system based on the search query, receiving a response to the query from the database system, and transmitting the response through the communication network interface port.

For example, this is illustrated in the example described above, in which Samsung's Bixby received a search query from a user through the communication network interface port, searched the database system in response to the query, received a response to the query from the database system, and transmitted the response through the communication network interface port. This is illustrated in the query response displayed to the user.



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21. The method		
according to claim 11,		
further comprising:		
receiving words and an		
associated location		
through the		
communication		
network interface port		
from the mobile		
electronic device		
storing the received		
words and associated		
location in the		
database; and		
retrieving the words		
from the database		
dependent on at least a		
location query.		
1000001 40019.		

On information and belief, Defendant performs all steps of this claim or, alternatively, to the extent a user performs any step, Defendant conditions the user's use of the Defendant's accused instrumentalities on the performance of that step as disclosed herein. For example, on information and belief, a user cannot use the accused instrumentality as described in this claim chart without performance of the steps recited in this claim. By providing the functionality of the accused instrumentality as described herein, Defendant also controls the manner and/or timing of the functionality described in this claim chart. In other words, for a user to utilize the functionality described in this claim chart, the steps of this claim must be performed in the manner described herein. Without performance of the steps as described herein, the Defendant's functionality will not be available to users.

On information and belief, Samsung's Bixby virtual assistant involves receiving words and an associated location through the communication network interface port from the mobile electronic device, storing the received words and associated location in the database; and retrieving the words from the database dependent on at least a location query.

For example, on information and belief, Bixby involves receiving and storing keywords (e.g., "coffee shops" or "gas stations") and associated locations (e.g., the location of coffee shops and gas stations). On information and belief, those words can be retrieved from the database dependent on at least a location query (e.g., "find coffee shops [or gas stations] near me").

22. A computer readable medium storing, instructions therein for causing a programmable processor to present location-based information to a mobile electronic device dependent on its location, comprising:

As shown below, Samsung's Bixby virtual assistant utilizes a computer readable medium storing instructions therefore for causing a programmable processor to present location-based information to a mobile electronic device dependent on its location.

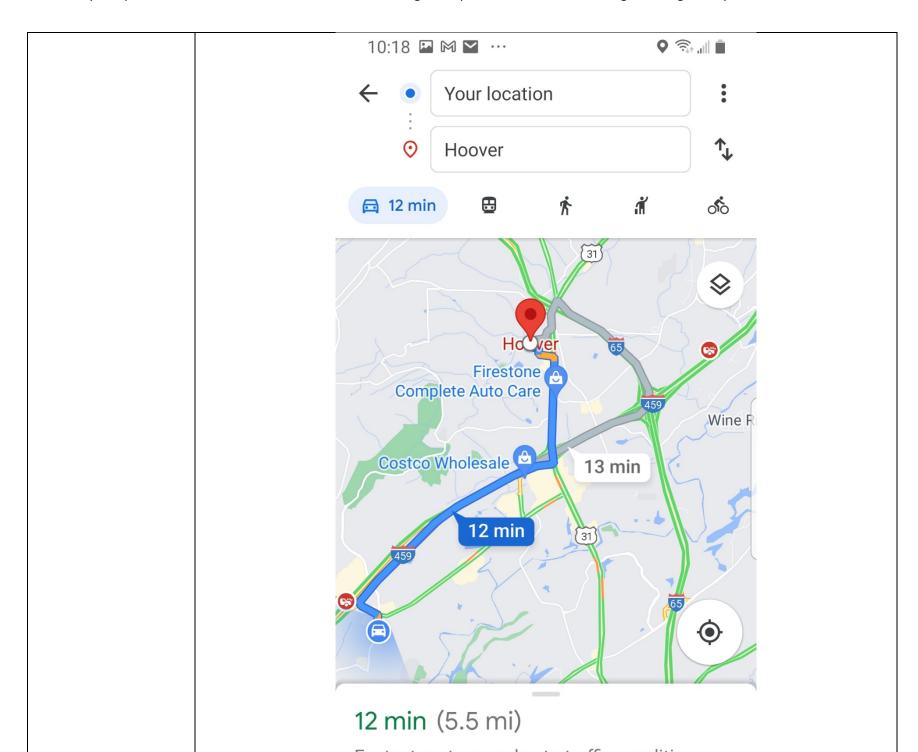
Preliminary comparison of U.S. Patent No. 11,100,163 to Samsung Smartphones and Tablets Utilizing Samsung's Bixby Virtual Assistant

instructions to cause a database system to store and retrieve location-based information for a traveler, the location-based information comprising location-based travel information and location-based advertisements;

Samsung's Bixby virtual assistant utilizes instructions to cause a database system to store and retrieve location-based information for a traveler, the location-based information comprising location-based travel information and location-based advertisements.

For example, in testing, a user asked Bixby, "Hi Bixby, how long will it take me to get home right now in traffic?"

As pictured below, Bixby utilized Google Maps to display an answer to the request, showing the answer to be twelve minutes. This evidences that Samsung's Bixby utilizes a database configured to automatically store and retrieve location-based information for a traveler. This includes location-based travel information (e.g., the information showing the route from the user's current location to the destination) and location-based advertisements (e.g., the advertisements for Costco Wholesale and Firestone Complete Auto Care).



Samsung's Bixby virtual assistant utilizes instructions to receive a location from a mobile electronic device through a communication network interface. For example, as illustrated in the example above, Samsung utilized a server that received a location from the user's mobile electronic device.
Samsung's Bixby virtual assistant utilizes instructions to receive location-based information from the mobile electronic device through the communication network interface. For example, as illustrated in the example above, Samsung utilized a server that received location-based information from the mobile electronic device (e.g., speed and traffic-related information, as indicated by the orange segments near the user's location).
Samsung's Bixby virtual assistant utilizes instructions to retrieve location-based travel information from the database system dependent on the received location of the mobile electronic device. For example, as illustrated in the example above, Samsung utilized a server that automatically retrieved location-based travel information from the database system (e.g., route and traffic information) dependent on the received location of the mobile electronic device.
Samsung's Bixby virtual assistant utilizes instructions to retrieve a location-based advertisement from the database system dependent on at least the received location of the mobile electronic device and relevant to at least one spoken keyword. For example, as illustrated in the example above, Samsung utilized a server that automatically retrieved a location-based advertisement from the database system dependent on at least the received location of the mobile electronic device and relevant to at least one spoken keyword (e.g., advertisements for Costco and

